



THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**Department of Agricultural Resources**  
251 Causeway Street, Suite 500, Boston, MA 02114  
617-626-1700 fax 617-626-1850 www.Mass.gov/AGR



MITT ROMNEY  
Governor

ELLEN ROY HERZFELDER  
Secretary

KERRY HEALEY  
Lieutenant Governor

DOUGLAS GILLESPIE  
Commissioner

**DEPARTMENT OF AGRICULTURAL RESOURCES APPROVED IPM PROGRAM**  
**FOR USE OF CHLOROTHALONIL ON GOLF PUTTING GREENS ONLY)**

**1) Name of Applicator:**

☐ Pesticide License Number:

☐ Property where application  
was made:

☐ Primary Recharge Area

*Zone II / IWPA and Municipality*

- 2) **Diagnosis:** Anthracnose is not always easy to diagnose. You must obtain **at least one diagnosis** from an appropriately qualified plant disease diagnostician for your property [e.g. UMass Turf Disease Diagnostic Lab ([http://www.umasssturf.org/services/turf\\_diagnostics/diseases.html](http://www.umasssturf.org/services/turf_diagnostics/diseases.html))] and retain the diagnostic report in your records. It is sometimes possible to diagnose anthracnose with careful observation, but you should obtain a new diagnosis whenever you are unsure if anthracnose is the cause of a future turf problem.

Date of diagnosis: \_\_\_\_\_

Lab name: \_\_\_\_\_

- 3) **Preventive cultural practices:** The following preventive measures will help minimize anthracnose. Check those that you perform and provide details of **methods** and **dates** when practices were implemented.

\_\_\_ aeration at least once a year . Details:

\_\_\_ improve drainage in disease-prone greens. Details:

\_\_\_ improve air movement (e.g. tree pruning) in disease-prone greens. Details:

\_\_\_ skip clean-up pass when possible in stressful weather. Details:

\_\_\_ maintain sufficient nitrogen and water for healthy growth. Details:

\_\_\_ syringe greens to reduce stress and continue into the late afternoon when windy. Details:

\_\_\_ temporarily increase mowing height during stressful weather. Details:

\_\_\_ move cup more frequently and/or divert traffic in disease-prone greens. Details:

\_\_\_ maintain thatch at ½" or less. Details:

\_\_\_ other practices used. Details:

- 4) **Curative cultural practices:** During disease outbreaks, some additional practices will help minimize disease. Check those that you perform and provide details:

\_\_\_ wash mowers when moving from greens with anthracnose to reduce spread of spores. Details

\_\_\_ hydroject or spike compacted areas where disease is active Details:

\_\_\_ avoid sand top-dressing until disease is checked. Details:

\_\_\_ temporarily skip clean-up pass. Details:

\_\_\_ spoon-feed quick release nitrogen fertilizer to enhance recovery. Details:

**5) Fungicides:** The University of Massachusetts Extension Turf Program has determined that there is “no viable alternative” to the use of chlorothalonil as part of a fungicide management program for anthracnose on golf course putting greens. Chlorothalonil is available for turfgrass use under numerous trade names. Examples include Andersons 5% Daconil, ChloroStar, Concorde SST, Daconil Ultrex, Daconil Weatherstik, Daconil Zn, Echo, Lebanon Daconil, Thalonil, and Ultrex. It is also present in several combination products such as Consyst, Lescro TwoSome, Spectro.

Dates and sites of pesticide applications	Rate	Product Name and EPA #

**Note:** Chlorothalonil is a contact/protectant fungicide. It is not effective when watered-in. A combination of chlorothalonil with a systemic/penetrant fungicide is most effective for foliar anthracnose. If you have basal rot/crown rot anthracnose, water-in the systemic/penetrant fungicide while it is still wet on the leaves to the crown area. Apply chlorothalonil in a separate application and allow it to dry. Preventive applications to disease-prone areas where anthracnose has been previously diagnosed can be very effective.

**6) Sprayer calibration:** You must calibrate your sprayer each year.

Date of calibration \_\_\_\_\_ Method used to calibrate \_\_\_\_\_

**7) Notification form:** You must notify the Department of Agricultural Resources Pesticide Bureau **after** you apply a pesticide product which is listed on the groundwater protection list. Notifications must be made to the Department **within ten days of the end of the month in which applications are made**. One form can be used for all of the month’s applications. For example:

If three applications are made in May, then you must notify the Department by June 10<sup>th</sup> that the applications have been made. If you make another three applications in June, then you would also have to notify the Department by July 10<sup>th</sup>.

Electronic notification forms can be accessed through the Department website at:  
[http://www.mass.gov/agr/pesticides/water/groundwater\\_program/groundwater\\_report.htm](http://www.mass.gov/agr/pesticides/water/groundwater_program/groundwater_report.htm)

Groundwater Protection Program,  
 Department of Agricultural Resources,  
 251 Causeway Street,  
 Boston, MA 02114

Date Notification  
 Form sent to DFA \_\_\_\_\_

**This information must be maintained with your pesticide records.**